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Remarks

Claims 1-20 were pending in the application. Claims 1-20 were rejected. Claims 6, 8, and 9 were merely objected to and no claims were allowed. By the foregoing amendment, no claims are canceled, claims 8 and 9 are amended, and claims 21-23 are added. No new matter is presented.

Interview Summary

Applicants appreciate the courtesy of a telephone interview between the undersigned and Examiners Michael A. Band and Rodney G. McDonald on November 13, 2007.

Regarding the specification and claim objections, the objections regarding the alloy shorthands noted in the attachment to Form PTOL-413A were agreed as withdrawn without further discussion. Regarding the units "ksi", Examiner Band asserted that "psi" would be beneficial for future searching. Accordingly, it was agreed that the specification and claims would be amended to include both units.

Similarly, the 35 U.S.C. 112(1) rejection of claim 18 was agreed as withdrawn without further discussion for the reasons noted in the PTOL-413A attachment.

Regarding the on-art rejections, the asserted sputtering of the Wortman et al. was discussed. Examiner Band confirmed that elements 325 and 326 were the asserted sputter targets. The undersigned indicated that those were the EBPVD rods. The undersigned submitted that the exact full application of Wortman et al. was unclear but appeared to do one or both of vitiating the distinction between sputtering and EBPVD and depriving Wortman et al. of its EBPVD components. It was agreed that a new action would address this if the rejection or similar rejection were to be maintained. The undersigned further offered to discuss any future clarifying amendment that would avoid treatment of elements 325 and 326 as sputter targets.

The other rejections and references were only generally discussed. The undersigned submitted that field of use-related elements will have different applicability to different claims and must be carefully considered. Wortman et al. on the one hand is in the field of depositing ceramic thermal barrier coatings and has associated properties and elements. Various of the secondary references are in yet different fields such as corrosion coatings, integrated circuit thin films, etc. Various of the present claims expressly identify gas turbine engine component repair

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and associated elements. In any obviousness rejection, the question is begged what is the goal of the person of ordinary skill in the art in the rejection? For example, is the broad goal to deposit barrier coatings or is it turbine engine repair? Given that goal, and any narrower goal, is the starting place appropriate? The undersigned noted that this may involve substantially different considerations when rejecting broad claims such as claim 1 (which is not field limited) contrasted with rejecting narrower claims that are explicitly field limited or implicitly field limited (e.g., by identifying particular material being deposited, which material is associated with the specific field). The undersigned, for example, asserted an example wherein Wortman et al. or another out-of-field reference might appropriately be asserted as a primary reference against claim 1 but would be an improper primary reference against a repair-specific dependent claim. With such a dependent claim, an in-field reference such as the Neal et al. publication (US20020076573) would be used.

Specification and Claim Objections

The alloy shorthand "Ti-6Al-2Sn-4Zr-2Mo, Ti-8Al-1V-1Mo and Ti-6Al-2Sn-4Zr-6Mo" and the abbreviation "ksi" in the specification and claims 6, 8, and 9 were objected to. This is overcome as noted in the Interview Summary above.

Claim Rejections-35 U.S.C. 112

Claim 18 was rejected under 35 U.S.C. 112(1). Applicants respectfully traverse the rejection. This is overcome as noted in the Interview Summary above.

Claim Rejections-35 U.S.C. 102

Claims 1-5, 7, 10, 11, 13, 14, 19, and 20 were rejected as being anticipated by Wortman et al. (US2005/0266163). Applicants respectfully traverse the rejection.

Page 1, paragraph 009 of Wortman et al. was cited for the sputtering. However, the cited text is merely a laundry list of possible deposition techniques. It is identified as an alternative to EBPVD. Elements 325 and 326 were asserted as sputter targets. These are, however, identified as the EBPVD rods. Thus, Wortman et al. does not involve a combination of IE-EBPVD and sputtering.

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Wortman et al. is directed to depositing particular ceramic thermal barrier coatings. Assertions of titanium or other materials as a component of a ceramic TBC do not constitute teaching of depositing the claimed titanium or other alloys.

The assertions regarding claim 7 based upon FIG. 7 of Wortman et al. are clearly unreasonable. The spaces between the grains clearly do not evidence loss of material and restoration.

Applicants could go on at length regarding further deficiencies in the Wortman et al. argument.

The added claims identify structural aspects of exemplary sputtering targets. The claim 21 elements are supported by paragraph 0052 at page 7 of the present pregrant publication, with surfaces 222 and 224 noted. The claim 22 shield is supported by element 226. The claim 23 target combination is supported by elements 220' and 220" at paragraph 0053 and FIG. 11.

Claim Rejections-35 U.S.C. 103

Claims 6 and 15 were rejected under 35 U.S.C. 103(a) as being unpatentable over Wortman et al. in view of Gabriele et al. (US6875318). Applicants respectfully traverse the rejection.

This citation appears to merely result from a hindsight reconstruction by keyword search without considering what is actually disclosed.

Applicants note the factors to be considered in under *Graham v. John Deere*. MPEP 706.02(j) (Contents of a 35 U.S.C. 103 Rejection) and from paragraph 7.23. Consideration of these would better focus the examination and permit Applicants to respond in an informed fashion.

A big question in all of the 103 rejections is what is the asserted goal of one of ordinary skill? For example, is one seeking to deposit a ceramic TBC as in Wortman et al. or is one seeking to deposit something else (e.g., metal restoration, thin films, etc.)? Then, with that particular goal in mind, why does one choose an asserted starting point (e.g., if one is seeking to restore metal rather than apply a TBC, why would one start with a TBC reference rather than a metal restoration reference, let alone the particular reference)? Why does one make an asserted modification? Is there an expectation of success?

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Gabriele et al. appears to involve polymer coating of stainless steel. Where is the relevance? What is the nature of the combination (e.g., what elements are taken from Gabriele et al., how are they incorporated, what other changes are made)? Where is the expectation of success?

Claim 8 was rejected under 35 U.S.C. 103(a) as being unpatentable over Wortman et al. in view of Ray et al. (US6986381). Applicants respectfully traverse the rejection.

Ray et al. involves the fabrication of molds for forming titanium castings. The same questions are relevant as those noted above in the Wortman et al. Gabriele et al. combination.

Claim 9 was rejected under 35 U.S.C. 103(a) as being unpatentable over Wortman et al. and Ray et al. in view of Gabriele et al. Applicants respectfully traverse the rejection.

The considerations noted above relative to the individual combinations with Wortman et al. are similarly relevant to this combination.

Claim 12 was rejected under 35 U.S.C. 103(a) as being unpatentable over Wortman et al. in view of Matsuzawa et al. (US6080292). Applicants respectfully traverse the rejection.

Matsuzawa et al. involves a monitoring apparatus for thin-film deposition. Again, similar background questions are presented.

Claims 16-18 were rejected under 35 U.S.C. 103(a) as being unpatentable over Wortman et al. in view of Wang (US6352629). Applicants respectfully traverse the rejection.

Wang involves a sputter reactor used in forming integrated circuits. Again, similar issues are presented.

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Accordingly, Applicants submit that claims 1-23 are in condition for allowance. Reconsideration and further examination are requested. Please charge any fees or deficiency or credit any overpayment to our Deposit Account of record.

Respectfully submitted,

By 

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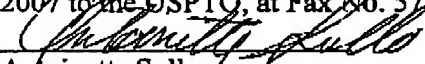
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Date: November 19, 2007

I hereby certify that this correspondence is being facsimile transmitted this 19th day of November, 2007 to the USPTO, at Fax No. 571-273-8300.


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